

Next Generation Rotorcraft Capability (NGRC)

Letter of Intent ¹ signed	Memorandum of Understanding ² signed	Delivery
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Participants



The NGRC aims to replace medium multi-role helicopters currently in service, like the AW-101.

What is the NGRC?

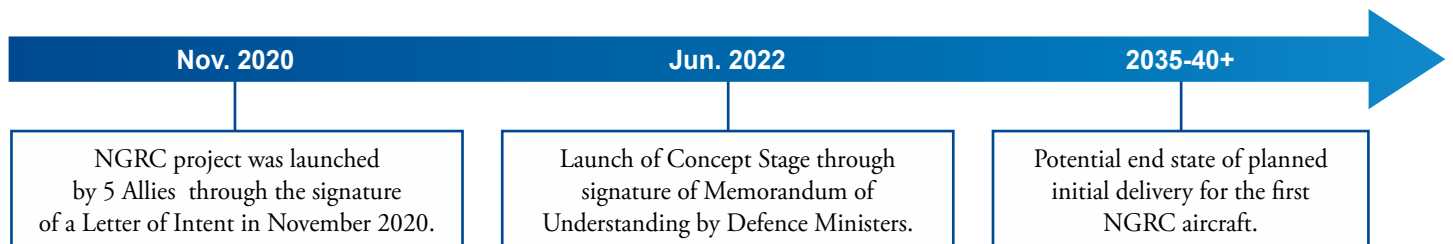
The Next Generation Rotorcraft Capability High Visibility Project³, creates a multinational framework under which its participants can combine efforts to work on design, development and delivery of a medium multi-role helicopter.

A significant amount of the medium multi-role assets currently in service by Allies, will reach the end of their life cycle in the 2035-40 period and beyond, with the subsequent need for replacements. These existing inventories are all based on designs dating back to the previous century. The aim of the NGRC initiative is to respond to this upcoming requirement, in a timely and cost-effective manner, while concurrently leveraging a broad range of recent advances in technology, production methods, and operational concepts.

NATO differentiates between three different classes of vertical lift – or generally known as helicopter – capabilities: light, medium, and heavy. The difference lies in the payload that can be carried. The NGRC concept phase will focus initially on medium multi-role capabilities, taking into account the speed of the technological evolution and participants’ future requirements.

Multinational effort

Following preliminary discussions about future requirements, Defence Ministers from France, Germany, Greece, Italy, and the United Kingdom, decided to launch the multinational NGRC initiative through the signature of a Letter of Intent in November 2020. Following this agreement, the five Allies have started working on defining a robust Statement of Requirements for informing a concept phase, and a multi-phase cooperation plan for defining, developing, and fielding of the NGRC capability. In June 2022, the Ministers of Defence launched the Concept Stage of the Project through signature of a Memorandum of Understanding. At this occasion, The Netherlands also joined the project to bring to the total number of participants up to six. In cooperation with industry, the participants will start from a clean sheet to explore how to match their needs with the latest technology on the market, looking at options such as hybrid and electric propulsion, a systematic open system architecture, and the delivery of radically improved flight characteristics. The nations selected the NATO Support and Procurement Agency (NSPA) to execute the Concept Stage.



1 Initial non-binding document outlining participants’ will to explore the area in question further.
 2 Legally binding document specifying details of cooperation.
 3 Multinational initiative tailored to address key capability areas, usually launched on the Defence Ministers’ level.

Why is it important?

Vertical multi-role capabilities play a crucial role in the force structure of NATO Allies. Within this context, medium multi-role helicopters offer a large degree of versatility. Their operational use incorporates a wide range of missions, including tactical operations such as: insertion and extraction of Special Operation Forces (see also: [MSAP initiative](#)); transport of small and medium sized cargo and troops into, out of, and within operational theaters; medical evacuation; search and rescue; and anti-submarine warfare. Their size allows them to take-off and land in topographically restricted areas, such as forest glades or mountain ranges, adding to their operational flexibility.

By fielding a shared helicopter design, the NGRC initiative aims to increase interoperability amongst participating Allies.

How does it work?

The NGRC High Visibility Project provides a structured approach under which the participants can step-by-step decide to design, develop, and eventually acquire the next generation of medium multi-role rotorcraft capabilities.

Did you know?



1. There are two different types of aircraft: fixed wing and rotary wing. The NGRC initiative focuses on rotary wing, which means lift is provided by rotating wing-blades or rotor-blades and not by air streaming over a fixed wing.
2. “Vertical Lift Capabilities” do not only include helicopters, but also tiltrotor aircraft such as the US operated V-22 Osprey, a hybrid between a fixed wing and a rotary wing aircraft.
3. Some of the current medium lift helicopter capabilities in service by Allies are based on airframe developments from the 1950s and 1960s. Constant updates over the last decades, such as the introduction of glass cockpit or new avionics, have ensured the capabilities remain operationally relevant.